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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,768	08/06/2001	Edward G. Callway	00100.00.0820	9391
29153	7590	11/29/2005	EXAMINER	
ATI TECHNOLOGIES, INC. C/O VEDDER PRICE KAUFMAN & KAMMHOLZ, P.C. 222 N.LASALLE STREET CHICAGO, IL 60601			VAN HANDEL, MICHAEL P	
			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/923,768	Applicant(s) CALLWAY ET AL.	
	Examiner Michael Van Handel	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **1-5, 10-19, 21-23** are rejected under 35 U.S.C. 102(e) as being anticipated by Hannah.

Referring to claims **1, 10-13, 15-18, and 21-22**, Hannah discloses a wireless display circuit/method comprising:

- a graphics processing circuit 302 operatively coupleable to a frame buffer 312 and operative to render graphics data based on rendering commands and to store rendered graphics data in the frame buffer (col. 2, l. 13-24, 50-56)(Fig. 6);
- a video decoder 102, 330 operatively responsive to a compressed video stream and operative to produce decoded video from the compressed video stream for display on a local display (col. 2, l. 35-48)(Fig. 1);
- a short range wireless transmitter operatively coupled to the graphic processing circuit (col. 3, l. 1-4)(col. 5, l. 46-53);
- a data encoder 106, 330 operatively coupled to the frame buffer 312 and to the short range wireless transmitter (the examiner notes that a wireless transmitter

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- must be connected to the frame buffer in order for a set-top box to re-broadcast MPEG-2 transmissions inside the home to televisions without using a cable connection), operative to encode the rendered graphics data stored in the frame buffer and to recompress the decoded video (col. 3, l. 10-16); and
- wherein the short range wireless transmitter transmits the encoded rendered graphics data and the recompressed decoded video (this limitation is met above).

Referring to claim 2, Hannah discloses the circuit of claim 1, including a blending circuit 104 operative to blend rendered graphics data and the decoded video, prior to the data encoder recompressing the decoded video to produce image frames containing recompressed video with encoded graphics data (col. 2, l. 50-56).

Referring to claim 3, Hannah discloses the circuit of claim 1, wherein the data encoder includes a suitably programmed processor 302 operatively coupled to the frame buffer 312 via a local bus (col. 8, l. 47-61).

Referring to claim 4, Hannah discloses the circuit of claim 3, wherein the suitably programmed processor carries out MPEG encoding on the rendered graphics data and on the decoded video to produce compressed image frames containing recompressed video with encoded graphics data that are wirelessly transmitted by the short range wireless transmitter (col. 9, l. 19-23).

Referring to claim 5, Hannah discloses the circuit of claim 1, wherein the data encoder includes a hardware based data encoder resident on at least one of a same printed circuit board and same integrated circuit die as the graphics processing circuit (the

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examiner notes that the MPEG encoder and the graphics controller are both connected to a local PCI bus and are therefore both resident on the same printed circuit board)(Fig. 6).

The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claims **14**, **19**, and **23**, Hannah discloses the methods of claims 10, 15, and 21, respectively, including the steps of:

- receiving, via a short range wireless receiver, a compressed video stream containing graphics data and recompressed video (the examiner notes that this is inherent to Hannah, since it is required for reception of the graphics and video);
- decompressing the received compressed video stream and producing decompressed image frames (inherent, since a video decoder is required for decompression of the MPEG stream); and
- displaying the decompressed image frames on a local display (remote display).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **6-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hannah in view of Yap et al.

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Referring to claim 6, Hannah discloses a wireless display system comprising:

- a first unit having at least:
 - o a first local display 136 (Fig. 1);
 - o a first frame buffer 312 (Fig. 6);
- a graphics processing circuit 320 operatively coupleable to a frame buffer 312 and operative to render graphics data based on rendering commands and to store rendered graphics data in the frame buffer (col. 2, l. 13-24, 50-56);
- a first video decoder 102, 330 operatively responsive to a compressed video stream and operative to produce decoded video from the compressed video stream for display on a local display (col. 2, l. 35-48);
- a short range wireless transmitter operatively coupled to the graphic processing circuit (col. 3, l. 1-4)(col. 5, l. 46-53);
- a data encoder 106, 330 operatively coupled to the frame buffer 312 and to the short range wireless transmitter (the examiner notes that a wireless transmitter must be connected to the frame buffer in order for a set-top box to re-broadcast MPEG-2 transmissions inside the home to televisions without using a cable connection), operative to encode the rendered graphics data stored in the frame buffer and to recompress the decoded video (col. 3, l. 10-16); and
- wherein the short range wireless transmitter transmits the encoded rendered graphics data and the recompressed decoded video (this limitation is met above).

Hannah also discloses:

- a second unit having a second local display (remote display);

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- a short range wireless receiver responsive to the encoded rendered graphics data and recompressed decoded video (the examiner notes that this is inherent to Hannah, since it is required for reception of the graphics and video); and
- a video decoder operatively coupled to the short range wireless receiver and operative to produce decoded video from the received encoded rendered graphics data and recompressed decoded video for display on the second local display (inherent, since a video decoder is required for decompression of the MPEG stream).

Hannah does not disclose that the second unit has a frame buffer. Yap et al. discloses a set top box with three frame buffers for MPEG decoding (p. 7, paragraph 77)(Fig. 3). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Hannah to include frame buffers such as that taught by Yap et al. in order to provide a continuously smooth video viewing experience.

Referring to claims 7-9, the combination of Hannah and Yap et al. teaches the system of claim 6, wherein the video decoder includes a suitably programmed processor 330 that carries out MPEG decoding on the received encoded rendered graphics data and recompressed decoded video to produce decompressed image frames and is operatively coupled to the second frame buffer via a local bus (this limitation is met by the Yap et al. citation of claim 6). The combination of Hannah and Yap et al. also teaches that the video decoder includes a hardware based video decoder resident on at least one of a same printed circuit board and same integrated circuit die as the frame buffer (the examiner notes that the video decoder and frame buffers are both resident on the same local bus and are therefore both resident on the same printed circuit board). The USPTO considers

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the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

5. Claim **20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hannah in view of Kapell et al.

Referring to claim **20**, Hannah discloses the method of claim 15. Hannah also discloses a short range wireless receiver (see note in claim 6 above). Hannah does not disclose the step of wirelessly sending drawing commands to a short range wireless receiver. Kapell et al. discloses a cursor control that allows a viewer to draw shapes and designs over the received television image (col. 4, l. 15-21). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Hannah to include a cursor control that allows a viewer to draw shapes and designs over a received television image such as that taught by Kapell et al. in order to allow viewers to interact with TV programs without causing physical damage to television viewing hardware (col. 1, l. 36-40).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fillebrown et al. discloses a personal wireless network that sends and receives audio and video between devices.

Makhlouf discloses a method and system, which enables wireless communication and control of various media in an integrated system.

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Yiu discloses a method and an apparatus for remotely interacting with a PC.

Margulis discloses a method for implementing a wireless television system with a wireless base station.

Hylton et al. discloses a system that provides wireless distribution of digital broadband information within a customer premise.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Van Handel whose telephone number is 571.272.5968. The examiner can normally be reached on Monday-Friday, 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571.272.7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVH

Michael Van Handel
Examiner
Art Unit 2617


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